

(X)

Notice of Allowability	Application No.	Applicant(s)	
	10/052,982	HEO ET AL.	
	Examiner	Art Unit	
	Hao X. Nguyen	2668	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to communications filed on 1/17/2002.
2. ☒ The allowed claim(s) is/are 1-14.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|---|
| <ol style="list-style-type: none">1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) .2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | <ol style="list-style-type: none">5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ .7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance9. <input type="checkbox"/> Other _____. |
|---|---|

DETAILED ACTION

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Paul J. Farrell on 11/23/2005.

The application has been amended as follows:

In the claimes:

In claim 12, line 5, "codesto" has been changed to "codes to".

Allowable Subject Matter

2. Claims 1-14 are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding claims 1-4,

The prior art does not teach or fairly suggest that wherein the base station comprises:

(I) a first determiner for receiving the orthogonal Walsh code information and the C/I information from the orthogonal Walsh code space information

generator and the C/I acquirer and determining a first data rate of the case that use the orthogonal Walsh codes, and

(II) a second determiner for receiving the C/I information from the C/I acquirer and determining a second data rate of the case that use the quasi-orthogonal Walsh codes, and

(III) a data rate selector for selecting a higher data rate of the first data rate and the second data rate, as specified in independent claim 1.

Regarding claims 5-8,

The prior art does not teach or fairly suggest that wherein the mobile station comprises:

(I) a first determiner for receiving the orthogonal Walsh code information and the C/I information from the orthogonal Walsh code space information receiver and the C/I measurer and determining a first data rate of the case that use the orthogonal Walsh codes, and

(II) a second determiner for receiving the C/I information from the C/I measurer and determining a second data rate of the case that use the quasi-orthogonal Walsh codes, and

(III) a data rate selector for selecting a higher data rate of the first data rate and the second data rate, as specified in independent claim 5.

Regarding claims 9-11,

The prior art does not teach or fairly suggest that wherein a method for the base station comprises:

(I) determining a first data rate in the case of using the orthogonal Walsh codes based on the orthogonal Walsh code information and the C/I information.

(II) determining a second data rate in the case of using the quasi-orthogonal Walsh codes based on the C/I information, and

(IV) selecting a higher data rate of the first data rate and the second data rate, as specified in independent claim 9.

Regarding claims 12-14,

The prior art does not teach or fairly suggest that wherein a method for the mobile station comprises:

(I) determining a first data rate in the case of using the orthogonal Walsh codes based on the orthogonal Walsh code information and the C/I information.

(II) determining a second data rate in the case of using the quasi-orthogonal Walsh codes based on the C/I information, and

(IV) selecting a higher data rate of the first data rate and the second data rate, as specified in claim 12.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should

preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Wheatley et al. (US Pat. No. 6,850,499 B2) discloses Method And Apparatus For Forward Power Control In A Communication System.

Sourour et al. (US Pub. No. 2002/0089950 A1) discloses CDMA System Using Quasi-Orthogonal Codes.

Gopalakrishnan et al. (US Pat. No. 6,930,981 B2) discloses Method For Data Rate Selection In A Wireless Communication System.

Ozluturk et al. (US Pub. No. 2005/0094604 A1) discloses Initial Power Control For Spread-Spectrum Communications.

Black et al. (US Pat. No. 6,147,964) discloses Method and Apparatus For Performing Rate Determination Using Orthogonal Rate-Dependent Walsh Covering Codes.

Bae et al. (US Pub. No. 2002/0097697 A1) discloses Apparatus And Method For Determining A Data Rate Of Packet Data In A Mobile Communication System.

Kong et al. (US Pat. No. 6,700,881 B1) discloses Rate Control Device And Method For CDMA Communication System.

Dent (US Pat. No. 6,934,317 B1) discloses Systems And Methods For Communicating Spread Spectrum Signals Using Variable Signal Constellations.

Tiedemann, JR. et al. (US Pub. No. 2002/0012332 A1) discloses Method And Apparatus For Forward Link Rate Scheduling.

Chan, M.C.-C.; Chuang, J.C.-I.; (Vehicular Technology Conference, 1996. 'Mobile Technology for the Human Race', IEEE 46th, Volume 2, 28 April-1 May 1996 Page(s):661 - 665 vol.2) discloses Multicode high-speed transmission with interference cancellation for wireless personal communications.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hao X. Nguyen whose telephone number is 571-272-8195. The examiner can normally be reached on M-F 8AM-5PM.

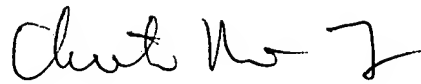
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on (571) 272-3042. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR

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system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hao X. Nguyen
Examiner
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A handwritten signature in black ink, appearing to read "Chieh M. Fan".

CHIEH M. FAN
SUPERVISORY PATENT EXAMINER